AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of treating a bone or cartilage tissue defect in a human or other animal subject, comprising the steps of:

(a) culturing endothelial cells in a tissue culture medium to form an endothelial cell tissue culture;

(b) subjecting said endothelial cell tissue culture to a pulsed electromagnetic field in vitro for at least about 8 hours delivered at about 4.5 seconds pulses at about 15 Hertz;

(c) extracting said tissue culture medium from said endothelial cell tissue culture; and

(d) administering said tissue culture medium to the site of said bone or cartilage tissue defect, wherein said administered tissue culture medium enhances proliferation of endothelial cells and stimulates angiogenesis at said site of the bone or cartilage tissue defect and thereby treating said bone or cartilage tissue defect.

2. (Cancelled)

3. (Previously Presented) A method according to claim 1 wherein said electromagnetic field is pulsed.

4. (Cancelled)

5. (Previously Presented) A method according to claim 1, wherein said bone or cartilage tissue defect is associated with osteoporosis, spinal fixation procedure, joint replacement procedure, or bone fracture.

6. (Withdrawn) A method of enhancing cell proliferation in a tissue culture of interest, comprising the steps of:

(a) culturing a living tissue in a medium to form a first tissue culture;

(b) subjecting said first tissue culture to an electromagnetic field;

(c) extracting said medium from said first tissue culture; and

(d) administering said medium to said tissue culture of interest.

7. (Withdrawn) A method according to claim 6 wherein said electromagnetic field is pulsed.

8. (Withdrawn) A method according to claim 6 wherein said living tissue comprises endothelial cells.

9. (Previously Presented) A composition for the treatment of bone or cartilage tissue defects in a human or other animal subject, comprising a safe and effective amount of a tissue culture medium produced by pulsed electromagnetic stimulation of an endothelial cell tissue culture for at least about 8 hours, and a pharmaceutically-acceptable carrier.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) A composition according to claim 9, wherein said carrier is selected from the group consisting of saline, hyaluronic acid, cellulose ethers ~~(such as carboxymethyl cellulose)~~, collagen, gelatin, an osteoconductive carrier, and mixtures thereof.

13. (Withdrawn) A composition according to claim 12, wherein said carrier comprises an osteoconductive carrier selected from the group consisting of bone particles, demineralized bone matrix, calcium phosphate, calcium sulfate, hydroxyapatite, polylactic acid, polyglycolic acid and mixtures thereof.

14. (Original) A composition according to claim 9, additionally comprising a growth active material selected from the group consisting of growth factors, hormones, phosphonates and mixtures thereof.

15. (Currently Amended) A method of treating a bone or wound defect in a human or other animal subject, comprising the steps of:

(a) culturing endothelial cells in a tissue culture medium to form a tissue culture;

(b) subjecting said tissue culture to a pulsed electromagnetic field in vitro for at least about 8 hours delivered at about 4.5 seconds pulses at about 15 Hertz;

(c) extracting said tissue culture medium from said tissue culture; and

(d) administering said tissue culture medium to the site of said defect,

said tissue culture medium enhancing proliferation of endothelial cells and stimulates angiogenesis in or near said defect to repair or enhance said ~~tissue~~ defect.

16. (Cancelled)

17. (Withdrawn) The method according to claim 15, wherein said cell type is selected from the group consisting of osteoblasts, osteocytes, osteoclasts and combinations thereof.

18. (Cancelled)

19. (Previously Presented) The method according to claim 15, wherein said endothelial cells comprise human umbilical vein endothelial cells.